

IV. CLAIM AMENDMENTS

1. (Currently amended) A method for making data transmission in a telecommunication network more effective, which comprises layer structure protocol means for data transmission, which protocol means comprise at least an upper layer and a lower layer, wherein the purpose of the lower layer (12) is at least to compose a data unit (6) to be transmitted to the upper layer (14) from one or more segments (9a, 9b), in which method:

one or more errors (5a) occurring in the received segments (1a, 1b) is detected, ~~characterized in that~~

wherein said data unit (6) to be transmitted to the upper layer is composed from one or more segments (9a, 9b) which contain one or more errors (5a), and

wherein information on the location of one or more errors (5a) is also transmitted to the upper layer (14).

2. (Currently amended) The method according to claim 1, in which it is also detected that an entire data unit (1a, 1b) to be received is missing, ~~characterized in that~~ wherein the location of the segment (9a, 9b) of said missing data unit (1a, 1b) in the data unit (6) to be composed is interpreted as an erroneous area (5a).

3. (Currently amended) The method according to claim 1, in which the erroneous data units (1a, 1b) are corrected in the lower

layer (12) within a determined delay using acknowledgements and retransmissions, ~~characterized in that~~

wherein in the lower layer (12) the data unit (6) to be transmitted to the upper layer (14) is composed from segments (9a, 9b) located in the received data units (1a, 1b) after all data units (1a, 1b) are received accurately, or when within a given delay there is not enough time to correct the erroneous or missing data units (1a, 1b) by means of retransmission.

4. (Currently amended) The method according to claim 1, in which the size of the segment (9a, 9b) located in the received data unit is determined in the upper layer (14), ~~characterized in that~~

wherein said error information to be transmitted to the upper layer (14) comprises the sequence number of the segments (9a, 9b) located in the received data unit (1a, 1b) and containing the error (5a), and

wherein in the upper layer (14) the areas (5b) containing the errors (5a) are calculated on the basis of the error information and the size of said segment (9a, 9b).

5. (currently amended) The method according to claim 1, in which the starting point (Sa) and the end (8b) of the segments (9a, 9b) located in the received data units and containing one or more errors are determined in the upper layer (14), ~~characterized in that~~

wherein said error information to be transmitted to the upper layer (14) contains the sequence number of those segments (9a, 9b) located in the received data units (1a, 1b) in which the error (5a) is located, and

wherein the areas (5b) within which the errors (5a) are located are calculated in the upper layer (14) on the basis of error information and the starting point (8a) and the end (8b) of said segment (9a, 9b).

6. (Currently amended) The method according to claim 4, wherein said segment (9a, 9b) also contains at least control information (4) of the upper protocol layer or a header (3), ~~characterized in that~~ and wherein the composed data unit (6) is discarded when the error (5a) is located at least partly in such a section of the composed data unit (6) which contains control information (4) of the upper protocol layer or a header (3).

7. (Currently amended) The method according to claim 1 in which the starting point (7a) and the end (7b) of the error are determined in the lower layer (12), ~~characterized in that~~ wherein said error information to be transmitted to the upper layer (14) comprises the starting point (7a) and the end (7b) of the error (5a) of the composed data unit (6).

8. (Currently amended) The method according to claim 7, wherein the segment (9a, 9b) also comprises at least control information (4) of an upper protocol layer or a header (3), ~~characterized in that~~ and wherein the composed data unit (6) is discarded when the

error (5a) is located at least partly in such a section of at least partly composed data unit (6) which contains control information (4) of an upper protocol layer or a header (3).

9. (Currently amended) The method according to claim 1, ~~characterized in that~~ wherein said lower layer is an RLC layer and said upper layer is a PDCP layer.

10. (Currently amended) The method according to claim 1, ~~characterized in that~~ wherein said received data unit is an RLC PDU unit and said composed data unit is an RLC SDU unit.

11. (Currently amended) Protocol means of a telecommunication network for data transmission, which layer structure protocol means comprise at least an upper layer and a lower layer,

wherein the purpose of the lower layer (12) is to compose a data unit (6) to be transmitted to an upper layer (14) from one or more segments (9a, 9b) contained in the received data units (1a, 1b) and to detect one or more errors (Sa) occurring in the received segments (1a, 1b), ~~characterized in that~~ and

wherein to make data transmission more effective, the purpose of said lower layer (12) is also to compose the data unit (6) to be transmitted to the upper layer from one or more segments (9a, 9b) containing one or more errors (Sa), and also to transmit information concerning the location of said one or more errors (Sa) to the upper layer (14).

12. (Currently amended) A wireless terminal arranged to function in a telecommunication network and comprising layer structured protocol means for data transmission, which protocol means comprise at least an upper layer and a lower layer,

wherein the purpose of the lower layer (12) is to compose a data unit (6) to be transmitted to an upper layer (14) from one or more segments (9a, 9b) contained in the received data units (1a, 1b) and to detect one or more errors (5a) occurring in the received segments (1a, 1b), ~~characterized in that and~~

wherein to make data transmission more effective, the purpose of said lower layer (12) is also to compose the data unit (6) to be transmitted to the upper layer from one or more segments (9a, 9b) containing one or more errors (5a), and also to transmit information concerning the location of said one or more errors (5a) to the upper layer (14).